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All Such Information Should Be Treated Confidentially.**

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

DIRECT TESTIMONY OF

JESSICA L. TUCKER

**ON BEHALF OF
EVERGY METRO, INC. d/b/a EVERGY KANSAS METRO**

**IN THE MATTER OF THE APPLICATION OF
EVERGY KANSAS METRO
FOR APPROVAL OF ITS 2020 ACTUAL COST ADJUSTMENT (“ACA”)**

DOCKET NO. 21-EKME-____-ACA

1 **Q: Please state your name and business address.**

2 A: My name is Jessica L. Tucker. My business address is 1200 Main, Kansas City, Missouri
3 64105-2122.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Evergy, Inc. (“Company”) as Senior Manager, Fuels and Emissions.

6 **Q: What are your responsibilities?**

7 A: My primary responsibilities include management and oversight of fuel procurement and
8 logistics (apart from natural gas) and coal combustion residual product management and
9 marketing for Evergy operated generating stations.

1 Q: Please describe your education, experience and employment history.

2 A: I graduated Summa Cum Laude from Kansas State University in December 1999 with a
3 Bachelor of Science degree in Agriculture. I began my career in the energy industry in
4 January 2001 with Aquila as an Associate Hourly Trader. In this role, my efforts were
5 focused on executing short term physical power transactions in the real time market
6 across various North American Electric Reliability Corporation (“NERC”) regions. My
7 employment with Evergy Metro (f/k/a KCP&L) began in August of 2002 as an Hourly
8 Trader on the real time desk. From August 2002 to May 2006, my role focused on
9 buying and selling power in the real time market. In June 2006, I was promoted to
10 Interchange Marketer, which focused my trading activity on day ahead and monthly
11 power transactions. I was also a part of the Company’s RTO integration team that
12 prepared the generation dispatching and trading area for participation in the Southwest
13 Power Pool (SPP) Energy Imbalance Service (“EIS”) market, which launched on
14 February 1, 2007. In November 2010, I was promoted to Manager, System Operations
15 (Power). My primary responsibility was to oversee 24x7 Power Control Center
16 functions, which consisted of real time and day ahead power trading, power scheduling,
17 and generation dispatching operations. This not only included overseeing our
18 participation in the SPP market, but compliance with applicable NERC Reliability
19 Standards. I was also responsible for preparing the dispatching and trading group for
20 participation in the SPP Integrated Marketplace (“IM”), which launched on March 1,
21 2014. In April 2015, I was promoted to Senior Manager, Power System Operations. In
22 July 2017, I moved into the role of Senior Manager, Fuels & Emissions within the Fuels
23 group.

1 Q: **Have you previously testified in a proceeding at the Kansas Corporation**
2 **Commission (“KCC” or “Commission”) or before any other utility regulatory**
3 **agency?**

4 A: Yes, I have provided written and/or verbal testimony before the MPSC and KCC as
5 follows:

- 6 • Early 2017 for MPSC Case No. ER-2016-0285 on certain topics associated with the
7 SPP Integrated Marketplace.
- 8 • In 2018 for MPSC case numbers ER-2018-0145 and ER-2018-0146 on fuel-related
9 issues.
- 10 • In 2018 for KCC Docket No. 18-KCPE-480-RTS on fuel inventory management.
- 11 • In 2020 for KCC Docket No. 20-EKME-278-ACA

12 Q: **On what subjects will you be testifying?**

13 A: I will address four topics:

- 14 ▪ A summary of the information provided in the Company’s quarterly ECA
15 submittals made on December 20, 2019, March 18, 2020, June 20, 2020, and
16 September 18, 2020, in Docket No. 08-KCPE-677-CPL, Evergy Kansas Metro’s
17 ECA tariff compliance docket;
- 18 ▪ A comparison of the projected 2020 ECA to its actual 2020 ECA;
- 19 ▪ Fuel procurement planning and practices; and
- 20 ▪ A summary of the cost effects on one part of the Southwest Power Pool (“SPP”)
21 Integrated Market (“IM”), namely the impact on consumer power prices due to
22 the combined balancing authority of the IM.

1 **I. Information Provided in Quarterly ECA Submittals**

2 **Q: What is the purpose of this portion of your testimony?**

3 A: In this section of my testimony, I will briefly describe the information Evergy Kansas
4 Metro submits when it files its ECA factors with the Commission.

5 **Q: What information does the Company submit when it files its ECA factors each**
6 **quarter?**

7 A: Evergy Kansas Metro's ECA tariff identifies several items that go into the calculation of
8 the ECA factors including fuel and purchased power costs, transmission costs and related
9 fees, emission allowance costs and off-system sales margins ("OSSM"). Starting in
10 December 2007, on or before the 20th day of the last month of each quarter, the Company
11 submits to the Commission a report containing projected monthly ECA factors on a
12 dollars per kWh basis for each remaining month of the effective ECA year. The
13 Company also submits a report that shows by account the total costs, revenues, and kWh
14 used to calculate the dollars per kWh factors. Starting with the March 2008 report, the
15 Company also compares the original ECA revenue projections and the then-current ECA
16 year-end projections on a total revenue basis.

17 **Q: Have there been any changes to how the Company projects those ECA factors?**

18 A: No, not this year. However, in Docket No. 15-KCPE-116-RTS, the Commission
19 approved implementation of a Transmission Delivery Charge ("TDC") Rider which took
20 effect beginning October 1, 2015. The TDC was designed to collect retail transmission
21 costs and fees from Kansas customers; therefore, beginning with the October 2015
22 projected monthly ECA factor, all retail transmission costs and fees were excluded from
23 our calculation of the projected monthly ECA factors.

1 **II. Projected 2020 ECA Versus Actual 2020 ECA**

2 **Q: What is the purpose of this portion of your testimony?**

3 A: In this section of my testimony, I will give a high-level comparison of projected 2020
4 ECA to actual 2020 ECA. I will also give high-level explanations of why actual values
5 varied from projected values. Witness Ms. Elizabeth Herrington provides additional
6 detail on the variances.

7 **Q: How does the actual ECA revenue requirement for 2020 compare to the projected**
8 **ECA revenue requirement?**

9 A: The actual ECA revenue requirement for 2020 of \$114.3 million is about eight percent
10 higher than the projection submitted in December 2019. The actual revenue requirement
11 was about four percent higher than the projection in March 2020, six percent higher than
12 the projection in June 2020, and one percent higher than the projection in September
13 2020.

14 **Q: How did the projected ECA revenue requirement change over the course of the**
15 **year?**

16 A: When the Company made its ECA submission in December 2019 with its projected
17 values for 2020, it estimated the Net Kansas Allocation of net energy costs for 2020 to be
18 \$105.9 million. The March update reflected a three percent increase to \$109.4 million.
19 In June, the revenue requirement estimate decreased one percent to \$107.8 million. Then
20 in September, the projected revenue requirement increased by five percent to \$113.1
21 million. These key values for each of the quarterly submissions are the Estimated Net
22 Kansas Allocation presented in Schedule JLT-1 2020.

23 **Q: What were the main reasons why the actual revenue requirement varied from the**

1 **projections submitted to the Commission in December 2019, March, June and**
2 **September 2020?**

3 A: The key driver for the variance in the Company's projected filings were changes in
4 purchased power expense. The actual 2020 purchased power value reflected an almost
5 **\$[REDACTED]-[REDACTED]** increase as compared to the December 2019 projected estimate.

6 **III. Evergy Metro's Fuel Procurement Practices**

7 **Q: What is the purpose of this portion of your testimony?**

8 A: In this section of my testimony, I will provide a brief summary of Evergy Metro's fuel
9 procurement practices.

10 **Q: Please describe how Evergy Metro buys coal.**

11 A: Evergy Metro has been following a strategy of laddering into a portfolio of forward
12 contracts for Powder River Basin ("PRB") coal. That portfolio consists of forward
13 contracts with staggered terms so that a portion of the portfolio will rollover each year.
14 When burn projections increase, or actual burns prove to be higher than anticipated,
15 supplemental purchases of coal are made on the spot market.

16 **Q: What did that ladder portfolio look like for 2020?**

17 A: In January 2020, Evergy Metro had contractual commitments for about **[REDACTED]** percent
18 of its expected coal requirements for 2020. It also had commitments for about
19 **[REDACTED]** percent for 2021 and **[REDACTED]** percent for 2022.

20 **Q: Does the Company update its fuel procurement and planning process to adjust for**
21 **changes in the marketplace?**

22 A: Yes. Evergy Metro routinely reviews fuel market conditions and market drivers. We
23 monitor market data, industry publications and consultant reports in an effort to avoid

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high prices and to take advantage of lower prices.

Q: How does the Company use natural gas?

A: Evergy Metro uses natural gas for multiple purposes. First, Evergy Metro uses natural gas as the ignition fuel and a supplemental fuel for maintaining flame stability in Hawthorn Unit 5. Second, Evergy Metro uses natural gas-fueled combustion turbines. It also uses natural gas to fuel its combined-cycle plant. Finally, Evergy Metro uses natural gas to increase the peaking capacity of Hawthorn Unit 9 by direct combustion in its heat recovery steam generator. Though the incremental thermal efficiency of direct combustion is lower than that of the base combined-cycle plant, the incremental cost can be lower than the market price for power and the additional electrical output can be valuable during peak load periods.

Q: Please describe how the Company buys natural gas.

A: When natural gas is required the Company solicits multiple offers, compares those offers to its view of the market, if an offer is significantly higher than the Company's view of the market it may challenge the offer, and finally selects the lowest offer.

Q: Has the implementation of Southwest Power Pool's ("SPP") Integrated Market ("IM") changed how the Company buys natural gas?

A: Yes. Prior to the implementation of the IM, the Company typically purchased gas before the day of delivery based on published daily gas prices for gas to be delivered the next day. With SPP dispatching units in the IM, the Company's natural gas units are typically not dispatched until after the next day gas market has stopped trading. Consequently, the Company now purchases most of its natural gas requirements on an intra-day basis.

1 **Q: Has this change in natural gas purchase strategy affected the prices the Company**
2 **pays for natural gas purchases relative to the market?**

3 A: Yes. Evergy Metro generally pays a small premium for intra-day gas.

4 **Q: How does the Company use fuel oil?**

5 A: Evergy Metro uses fuel oil primarily for two purposes. It is used as a peaking fuel at the
6 Northeast station and it is used for start-up and flame management at Iatan and La Cygne.
7 Like natural gas, fuel oil usage for a given day or hour is typically unpredictable.

8 **Q: How does the Company's use of fuel oil affect how it purchases fuel oil?**

9 A: Somewhat like natural gas, fuel oil is also purchased on an as-required basis. Unlike
10 natural gas, Evergy Metro has fuel oil storage. Therefore, the requirement is more to
11 replenish the station's inventory or stock up in anticipation of an event. For example, the
12 Company may add to inventory in anticipation of winter weather that might make it
13 difficult for oil to be delivered to a station.

14 **Q: Please describe how the Company buys nuclear fuel.**

15 A: Wolf Creek Nuclear Operating Corporation ("Wolf Creek") purchases uranium and has it
16 processed for use as fuel in its reactor. This process involves conversion of uranium
17 concentrates to uranium hexafluoride, enrichment of uranium hexafluoride and
18 fabrication of nuclear fuel assemblies. As of December 31, 2020, Wolf Creek has on
19 hand or under contract all of the uranium concentrates required for operation **
20 **, and the uranium enrichment and conversion services required for
21 operation through **. The station also has under contract all of
22 the uranium fuel fabrication required to operate Wolf Creek **.
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1 **IV. Cost Benefit of SPP IM Consolidated Balancing Authority**

2 **Q: What is the purpose of this portion of your testimony?**

3 A: In this section of my testimony, in compliance with the Staff's Report and
4 Recommendation filed January 31, 2017 in Docket No. 16-KCPE-388-ACA, I will
5 provide a brief summary of Evergy Metro's proposed analysis of the benefit of the SPP
6 IM Consolidated Balancing Authority ("CBA") for Evergy Metro customers.

7 **Q: Please describe the CBA.**

8 A: Prior to the SPP IM, each legacy Balancing Authority provided a daily schedule of its
9 own load and generation. Therefore, each schedule primarily matched local load to local
10 generation. This could lead to some lower priced generation being passed over on certain
11 hours due to lack of local demand, while at the same time a different legacy Balancing
12 Authority's demand might have to be served by slightly higher priced generation local to
13 its service territory. The CBA takes the responsibility of each legacy Balancing
14 Authority to balance load and gives it to the SPP for the entire market. In this way, lower
15 cost generation is matched to demand more reliably. The net effect of the CBA reduces
16 total system costs of all market participants.

17 **Q: Is the value derived from the CBA the only benefit from participation in the SPP**
18 **IM?**

19 A: A full cost-benefit analysis is beyond the scope of the Company resources to produce. In
20 response to a KCC Staff data request in 2015, discussions were held to devise a method
21 that attempts to capture a sense of the benefit the SPP IM has provided.

Q: Describe the proposed analysis.

A: What was proposed to meet Staff's data request was to focus on the single market benefit associated with the CBA in the SPP IM structure. This study will not be able to quantify many other benefits of the SPP IM such as increased transmission construction, improved settlements, wind generation improvements, etc. However, this study will look at the resulting Locational Marginal Pricing ("LMP") for the Company's native load improvement as a proxy for the cost/benefit to serve native load by transitioning to SPP IM.

Q: Describe how the analysis was conducted.

A: The analysis attempts to compare and quantify the before and after effect of the SPP IM. The Company performed two PROMOD based simulations for calendar year 2020:

Simulation 1: Assumes the SPP IM market with CBA for all of SPP for the entire year (the "after" effect).

Simulation 2: Assumes the SPP Energy Imbalance Service ("EIS"), the market in SPP prior to the SPP IM, for the full year assuming individual balancing authority by control area (the "before" effect).

To calculate the benefit, the Evergy Metro LMP in each simulation was compared and the change in the cost to serve native load for Evergy Metro was valued. The native load used in this calculation is for both Missouri and Kansas customers.

The final results estimate a very slight cost of **[REDACTED]** for customers as shown in the attached Schedule JLT-2 2020; however as discussed above, this is not inclusive of the many other benefits that the SPP IM provides.

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1 **Q:** **Does that conclude your testimony?**

2 **A:** Yes, it does.

**BEFORE THE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

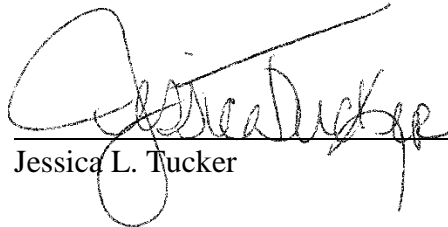
**In the Matter of the Application of Evergy
Metro, Inc. d/b/a Evergy Kansas Metro for
approval of 2020 Actual Cost Adjustment
("ACA")**)
)
) **Docket No. 21-EKME-____-ACA**
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AFFIDAVIT OF JESSICA L. TUCKER

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

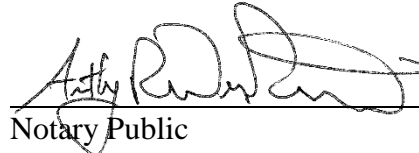
Jessica L. Tucker, being first duly sworn on her oath, states:

1. My name is Jessica L. Tucker. I work in Kansas City, Missouri, and I am employed by Evergy, Inc. as Senior Manager, Fuels and Emissions.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Kansas Metro consisting of eleven (11) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.



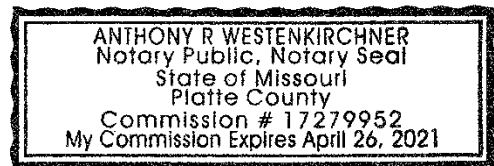
Jessica L. Tucker

Subscribed and sworn before me this 1st day of March 2021.



Notary Public

My commission expires: 4/26/2021



EVERGY KANSAS METRO (formerly KCP&L)
ENERGY COST ADJUSTMENT (SCHEDULE ECA)

SUMMARY TOTAL VALUES

SUMMARY TOTAL VALUES		Projected January		December 2020		Actual January		December 2020			
ECA Year 2020		December 20, 2019		March 18, 2020		June 20, 2020		September 18, 2020		March 1 2021 ACA filing	
		<u>Retail,</u>									
		<u>SalesforResale,</u>		<u>OSSM (Wholesale</u>		<u>Retail, SalesforResale,</u>		<u>OSSM (Wholesale</u>		<u>Retail, SalesforResale,</u>	
		<u>BPSnotinOSSM</u>		<u>Amount)</u>		<u>BPSnotinOSSM</u>		<u>Amount)</u>		<u>BPSnotinOSSM</u>	

SCHEDULE JLT-2

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